

AMENDMENTS TO THE DRAWINGS

The attached Replacement Sheets of drawings replace the original drawing sheets including Figures 4, 5, 9 and 13.

Attachments: Replacement Sheets (4)

REMARKS

Favorable reconsideration of this application, in light of the preceding amendments and following remarks, is respectfully requested.

Claims 92-107 are pending in this application. Claims 94 and 105 are amended.

Information Disclosure Statement

Applicants acknowledge with appreciation the Examiner's indication that the references included in the Information Disclosure Statement filed December 17, 2003 have been considered.

Drawings

The drawings were objected to and the Examiner requested that the drawings be relabeled.

In accordance with the Examiner's request, the drawings have been relabeled. For example, the attached Replacement Sheet for FIG. 4, now includes figures labeled as "FIG. 4a", "FIG. 4b" and "FIG 4c". Replacement Sheets are also provided for FIGS. 5, 9 and 13.

In light of the Replacement Sheets, Applicants respectfully request that the drawing objections be withdrawn.

Amendments to the Specification

As shown in the preceding section, the specification has been amended to be consistent with the drawing Replacement Sheets filed herewith. Applicants respectfully submit that no new matter is added by the amendments to the specification.

Claim Objections

Claim 105 is objected to because of missing punctuation. Claim 105 has been amended to include a period at the end of the claim and thus, this objection has been overcome.

Therefore, Applicants respectfully request that the objection of claim 105 be withdrawn.

Claim Rejections under 35 U.S.C. § 112, second paragraph

Claims 94 and 105 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. In particular, the Examiner asserts that the phrase “such as” renders the claim indefinite.

In response to this rejection, claims 94 and 105 are amended to delete the rejected language. Accordingly, Applicants respectfully submit that the rejection to claims 94 and 105 has been overcome.

Therefore, Applicants respectfully request that the rejection of claims 94 and 105 under 35 U.S.C. § 112, second paragraph, be withdrawn.

Double Patenting Rejections and Rejections under 35 U.S.C. § 102

Claims 92-107 stand rejected on the grounds of nonstatutory obviousness-type double patenting as unpatentable over claims 1-25 of van Halteren et al. (U.S. Patent No. 6,931,140, herein van Halteren) and claims 1-15 of U.S. Publication No. 2002/0114214, which was recently allowed as Hansen et al. (U.S. Patent No. 7,062,063, herein Hansen). Claims 92-107 stand rejected under 35 U.S.C. § 102(e) as anticipated by Van Halteren and claims 92-100 stand rejected under 35 U.S.C. §102(e) as anticipated by Hansen. Applicants respectfully traverse these rejections for the reasons detailed below.

Initially, Applicants respectfully note that these rejections are treated together because the features that patentably distinguish the independent claims from both Van Halteren and Hansen are the same. Further, an Illustrative Example follows this amendment and visually indicates differences between the Hansen and Van Halteren references and independent claims 92 and 102 of this application.

Independent claim 92 recites the following.

An electroacoustic transducer comprising

- a magnetic circuit having a first and a second gap, and magnetic means so to establish **a magnetic field in each of the first and second gaps, the magnetic fields having the same direction,**
- a diaphragm, and
- a coil system comprising at least one coil forming an electrically conducting path, the coil system having portions of the electrically conducting path fastened to the diaphragm, the coil system further having first and second gap portions of its electrically conducting path situated in respective ones of the first and second gaps,

wherein the magnetic means comprises **a magnet arranged so that each of its magnetic poles defines a surface of respective ones of the first and second gaps.**

Applicants respectfully submit that at least the above-emphasized features of independent claim 92 patentably distinguish the claimed invention over the cited references of Hansen and Van Halteren. Further, Applicants respectfully note that independent claim 102 includes somewhat similar features and thus, is also patentably distinguished from the cited references of Hansen and Van Halteren.

Both of Van Halteren and Hansen describe a transducer configuration with two magnets and a centrally located pole piece, wherein each magnet generates the magnetic field in a single gap so that the magnetic fields in the gaps are oppositely directed.

The two-dimensional sketches shown in the Illustrative Example following this Amendment serves to illustrate a significant difference between the magnetic circuit according to independent claim 92 and the magnetic circuits described in Van Halteren and Hansen. “N” and “S” respectively indicate north and south poles of the magnets, and the arrows indicate the magnetic field directions in the magnetic gaps.

The upper sketch of the Illustrative Example shows the magnetic circuit according to Hansen and Van Halteren (see e.g. Fig. 3 of Hensen and Figs. 1 and 2 of Van Halteren showing the same configuration). The magnetic fields in the two magnetic gaps have opposite directions as indicated by the arrows in the upper sketch, and only one pole of each of the two magnets defines a surface of each of the magnetic gaps.

The lower sketch illustrates the magnetic circuit according to independent claim 92 and an example embodiment shown in FIG. 3 of this application. As shown in FIG. 3 and the Illustrative Example, one centrally positioned magnet has magnetic poles, which each define a

surface of the respective magnetic gaps. Accordingly, the magnetic fields in the two magnetic gaps have the same direction.

Accordingly, Applicants respectfully submit neither Van Halteren nor Hansen, either alone or in any proper combination, disclose, teach or suggest the above-emphasized features of independent claim 92 and/or the similar features of independent claim 102.

Further, Applicants respectfully submit that one skilled in the art would not be motivated to modify the magnetic circuits in cited references and could not easily modify the magnetic circuits described in Van Halteren and Hansen to provide magnetic fields in the gaps having the same direction and a properly functioning electroacoustic transducer. This is due to the fact that the coil systems described in Van Halteren and Hansen are based on a magnetic circuit with two gaps having opposite directions of magnetic fields in the two magnetic gaps. Accordingly, using the coil system of Van Halteren and Hansen with a magnetic circuit according to independent claim 92 would not result in a functioning transducer. Therefore, in order to arrive at an electroacoustic transducer according to claim 92, one skilled in the art would be forced to make substantial and difficult modifications to both the magnetic circuit and the coil systems of Van Halteren and Hansen.

Applicants respectfully submit that these modifications would not be obvious to one of ordinary skill in the art.

In light of the above, Applicants respectfully submit that the cited references of Van Halteren and Hansen, either alone or in any proper combination, fail to disclose, teach or suggest

magnetic fields in the first and second gaps having the same direction or magnetic poles of a magnet that define a surface of the magnetic gaps.

In light of the above, Applicants respectfully request that the double patenting rejection and the rejection under 35 U.S.C. § 102(e) based on the cited references of van Halteren and Hansen have been overcome. Therefore, Applicants respectfully request that these rejections be withdrawn.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of the pending claims of the present application is earnestly solicited.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) hereby petition(s) for a two (2) month extension of time for filing a reply to the outstanding Office Action and submit the required \$450.00 extension fee herewith.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John A. Castellano at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By

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